

# STATE OF NEW HAMPSHIRE

Inter-Department Communication

**DATE:** September 23, 2009

**FROM:** Paul Currier, P.E., Administrator  
Watershed Management Bureau

**AT (OFFICE):** Department of  
Environmental Services, Water Division

**SUBJECT:** Draft Initial Proposal for changes to Surface Water Quality Regulations Env-Wq 1700  
and Explanation of Changes

**TO:** Water Quality Standards Advisory Committee

**CC:** Gregg Comstock  
Harry Stewart  
Phil Trowbridge  
Bob Estabrook

For the WQSAC meeting on 1/22/2009 DES distributed a draft Initial Proposal for changes to Surface Water Quality Regulations Env-Wq 1700 (attachment 1). We fully intended to move forward with rulemaking at that time. Due to resource constraints, internal and legal review of the draft did not occur until summer 2009. This review, and a subsequent round of internal comments have resulted in changes to the Initial Proposal that are significant, and we are therefore presenting them to WQSAC at the 9/23/2009 meeting for your further review and comment (attachment 2).

In summary, the following changes have been made:

- (1) "As naturally occurs" has been removed from narrative criteria for the following parameters: Benthic deposits; Oil and grease; color; Turbidity, Temperature, Nitrogen, Phosphorus, and pH. The proposed rule changes would make narrative criteria for these parameters the same for class A and class B waters. The reason for this change is explained in a separate memo.
- (2) A provision has been added that "activities affecting Class A waters that the department determines would result in degradation of water quality shall be considered significant for the purposes of antidegradation review." This provision is intended to provide comparable protection to class A waters to the "as naturally occurs" language that has been removed.
- (3) The section on "Demonstration of Economic or Social Development" has been reworked and expanded. The section now includes lists of factors that the department is to consider, and specific criteria for allowing degradation that include: "no feasible alternative exists to degradation, the proposed degradation is the minimum necessary to carry out the project or activity, and the social and economic benefits of the proposed project or activity outweigh the environmental harm that could be caused by the lower water quality."
- (4) Public participation has been specified to be AFTER the department makes a preliminary determination, and before a final determination, so that hearings can be held on the preliminary determination as well as on the information used by the department in making it.

## ATTACHMENT 1

Readopt with amendment Env-Wq 1703.14, Env-Wq 1708.10 and Env-Wq 1708.12, to read as follows:

Amend Section Env-Wq 1703.14 (#9162, eff 5-21-08) Nutrients to read as follows:

Env-Wq 1703.14 Nutrients.

- (a) Class A waters shall contain no phosphorus or nitrogen unless naturally occurring.
- (b) Class B waters shall contain no phosphorus or nitrogen in such concentrations that would impair any existing or designated uses, unless naturally occurring.
- (c) Existing discharges containing either phosphorus or nitrogen which encourage cultural eutrophication shall be treated to remove phosphorus or nitrogen to ensure attainment and maintenance of water quality standards.
- (d) There shall be no new or increased discharge of ***sewage or waste containing phosphorus or nitrogen*** into lakes or ponds ***or to tributaries of lakes or ponds.***
- ~~(e) There shall be no new or increased discharge(s) containing phosphorus or nitrogen to tributaries of lakes or ponds that would contribute to cultural eutrophication or growth of weeds or algae in such lakes and ponds.~~

Amend Section Env-Wq 1708.10 (#9162, eff 5-21-08) Demonstration of Economic or Social Development to read as follows:

Env-Wq 1708.10 Demonstration of Economic or Social Development.

(a) Unless the department determines from documentation provided by the applicant, or other available information, that a proposed new or increased discharge or other activity would result in an insignificant impact to the existing water quality of a high quality waterbody, the department shall require that the applicant provide documentation, ~~in accordance with the procedures delineated in "Interim Economic Guidance for Water Quality Standards" EPA-823-B-95-002, dated March 1995,~~ that the:

- (1) Proposed project or activity will provide an important economic or social development in the area where the waterbody is located; and
- (2) Lowering of water quality is necessary to accommodate the development.

Amend Section Env-Wq 1708.12 (#9162, eff 5-21-08) Transfer of Water to Public Water Supplies to read as follows:

Env-Wq 1708.12 Transfer of Water to Public Water Supplies. ~~The transfer of waters from rivers, streams, lakes, or ponds to waters used as a public water supply shall be subject to the following conditions:~~

***(a) When water transfer from one waterbody to another is proposed, the following conditions shall apply:***

~~(a) Both the source water in the area of the withdrawal and the receiving water shall be acceptable for water supply uses after treatment;~~

***(a1) Transferred water may be treated to comply with the provisions of this section***

~~(b2) The chemical, and physical water quality parameters of the source water shall be at least equal to the water quality of the receiving water~~ ***The transferred water shall not contain exotic aquatic species or species of aquatic life that may result in a violation of Env-Wq 1703.19 in the source water or the receiving water;***

~~(c) The biological characteristics of the source water shall be compatible with those of the receiving water and shall not contain species of aquatic life that would adversely affect the species of aquatic life in the receiving water;~~

***(3) Existing and designated uses shall be maintained and supported in the source water and the receiving water;*** and

~~(d) (4) The transfer and withdrawal shall both be considered significant under Env-Wq 1708.09, for the purposes of antidegradation review, comply with the antidegradation provisions of this part.~~

***(b) Transfer of water does not constitute a discharge under RSA 485-A:8.1***

***(c) Transfer of water does not constitute a discharge under RSA 485-A:13***

## ATTACHMENT 2

Readopt with amendment Env-Wq 1703.08 through 1703.11, eff. 5-21-08 (doc. #9162), to read as follows:

Env-Wq 1703.08 Benthic Deposits. ~~(a) Class A waters shall contain no benthic deposits, unless naturally occurring.~~ ~~(b) Class A~~ **and class B** waters shall contain no benthic deposits that have a detrimental impact on the benthic community, ~~unless naturally occurring.~~

Env-Wq 1703.09 Oil and Grease. ~~(a) Class A waters shall contain no oil or grease, unless naturally occurring.~~ ~~(b) Class A~~ **and class B** waters shall contain no oil or grease in such concentrations that would impair any existing or designated uses.

Env-Wq 1703.10 Color. ~~(a) Class A waters shall contain no color, unless naturally occurring.~~ ~~(b) Class A~~ **and class B** waters shall contain no color in such concentrations that would impair any existing or designated uses, unless naturally occurring.

Env-Wq 1703.11 Turbidity.

~~(a) Class A waters shall contain no turbidity, unless naturally occurring.~~

~~(ba)~~ Class **A and class B** waters shall not exceed naturally occurring conditions by more than 10 NTUs.

~~(eb)~~ Waters identified in RSA 485-A:8, III shall contain no turbidity of unreasonable kind or quality.

~~(dc)~~ For purposes of state enforcement actions, if a discharge causes or contributes to an increase in turbidity of 10 NTUs or more above the turbidity of the receiving water upstream of the discharge or otherwise outside of the visible discharge, a violation of the turbidity standard shall be deemed to have occurred.

Readopt with amendment Env-Wq 1703.13 and Env-Wq 1703.14, eff. 5-21-08 (doc. #9162), to read as follows:

Env-Wq 1703.13 Temperature.

(a) There shall be no ~~change~~ **increase** in temperature in class A waters, ~~unless naturally occurring that could interfere with the uses assigned to this class.~~

(b) Temperature in class B waters shall be in accordance with RSA 485-A:8, II, and VIII.

Readopt with amendment Env-Wq 1703.14, eff. 5-21-08 (doc. #9162), to read as follows:

Env-Wq 1703.14 Nutrients.

~~(a) Class A waters shall contain no phosphorus or nitrogen unless naturally occurring.~~

~~(ba)~~ Class **A and class B** waters shall contain no phosphorus or nitrogen in such concentrations that would impair any existing or designated uses, unless naturally occurring.

~~(eb)~~ Existing discharges containing ~~either~~ phosphorus or nitrogen, **or both**, which encourage cultural eutrophication shall be treated to remove phosphorus or nitrogen, **or both, as applicable**, to ensure attainment and maintenance of water quality standards.

~~(dc)~~ There shall be no new or increased discharge of **sewage or waste containing** phosphorus **or nitrogen, or both**, into lakes or ponds **or to tributaries of lakes or ponds**.

~~(e) There shall be no new or increased discharge(s) containing phosphorus or nitrogen to tributaries of lakes or ponds that would contribute to cultural eutrophication or growth of weeds or algae in such lakes and ponds.~~ [merged with previous paragraph]

Readopt with amendment Env-Wq 1703.18, eff. 5-21-08 (doc. #9162), to read as follows:

Env-Wq 1703.18 pH. ~~(a) The pH of Class A waters shall be as naturally occurs.~~ ~~(b) The pH of Class A~~ **and class B** waters shall be 6.5 to 8.0, unless due to natural causes.

Readopt with amendment Env-Wq 1708.06, eff. 5-21-08 (doc. #9162), to read as follows:

Env-Wq 1708.06 Protection of Class A Waters.

(a) In accordance with RSA 485-A:8, I, discharges of sewage or waste to Class A waters shall be prohibited.

(b) Proposed new or increased activities ***affecting class A waters*** that the department determines do not involve the discharge of sewage or waste shall be reviewed in accordance with Env-Wq 1708.01 through Env-Wq 1708.12.

(c) ***Proposed new or increased activities affecting class A waters that the department determines could result in degradation of water quality shall be considered significant for the purposes of antidegradation review.***

Readopt with amendment Env-Wq 1708.10, eff. 5-21-08 (doc. #9162), to read as follows:

Env-Wq 1708.10 Demonstration of Economic or Social Development.

(a) Unless the department determines from documentation provided by the applicant, or other available information, that a proposed new or increased discharge or other activity would result in an insignificant impact to the existing water quality of a high quality waterbody, the department shall ~~require that~~ ***not approve the discharge unless*** the applicant provides documentation, ~~in accordance with the procedures delineated in "Interim Economic Guidance for Water Quality Standards" EPA-823-B-95-002, dated March 1995,~~ ***demonstrating that the:***

(21) Lowering ~~of the~~ water quality is necessary to accommodate the development;

(42) ~~The p~~Proposed project or activity will provide an important economic or social development in the area where the waterbody is located; and

(3) ***The social and economic benefits of the proposed project or activity outweigh the environmental harm that could be caused by the lower water quality.***

~~(b) Where the department finds, based on the information provided in Env-Wq 1708.10(a) that a proposed project would provide an important economic or social development, it shall require that an alternatives analysis be developed, in accordance with Env-Wq 1708.10(c), to determine if it is possible to realize those benefits either without lowering water quality or with a reduced degree of degradation.~~

~~(eb) To determine if the lowering of water quality is necessary to accommodate an important economic or social benefit, the department shall require the applicant to~~ ***shall complete an alternatives analysis as described in (c), below, and evaluate the following alternatives and submit the analysis to the department together with*** technically and scientifically valid ***supporting*** ~~information describing.~~

~~(c) The alternatives analysis required by (b), above, shall describe the benefits to and impacts on water quality of each-all reasonable alternatives, on water quality and the degree to which the economic or social benefits could be realized if the alternatives were implemented including but not limited to the following:~~

- (1) Alternative methods of production or operation;
- (2) Improved process controls;
- (3) Water conservation practices;
- (4) Wastewater minimization technologies;
- (5) Non-discharging alternatives;
- (6) Improved wastewater treatment facility operation;

(7) Alternative methods of treatment, including advanced treatment beyond applicable technology requirements of the Clean Water Act; ~~and~~

(8) Alternative sites, and associated water quality impacts at those sites; *and*

(9) *For activities that involve alteration of terrain, alternative site design, including but not limited to infiltration of stormwater and minimization or disconnection of impervious surfaces.*

(d) *For purposes of evaluating whether the project or activity will provide an important social and economic development, the area where the waterbody is located shall include the municipality or municipalities in which the waterbody is located and all municipalities that abut those municipalities.*

(e) *To determine if the project or activity will provide an important social and economic development, the applicant shall submit information on, and the department shall evaluate, the following factors:*

(1) *The effect on public and social services;*

(2) *The effect on public health and safety;*

(3) *The effect on quality of life;*

(4) *The effect on employment;*

(5) *The effect on tourism;*

(6) *Consistency with municipal and regional master plans and economic development strategies; and*

(7) *Other social or economic factors that are specific to the area.*

(f) *To determine the environmental impacts of lower water quality, the applicant shall submit information on, and the department shall evaluate, the following factors:*

(1) *The sensitivity of existing and designated uses to the proposed discharge;*

(2) *The nature of the pollutants and their estimated fate in the waterbody;*

(3) *The estimated degree of change in water quality due to the proposed activity;*

(4) *The presence of high value resources that would be affected;*

(5) *The flow characteristics of the discharge;*

(6) *The reliability of proposed treatment technology, if any; and*

(7) *Other factors that are specific to the affected waterbody.*

~~(d-g)~~ The department shall make a preliminary determination, based on the information provided in Env-Wq 1708.10(a) and (c), to approve or deny the applicant's request *in accordance with this section*.

~~(e-h)~~ If the department's *preliminary determination is to* approve the applicant's request, the department shall provide the opportunity for public comment on its preliminary decision in accordance with Env-Wq 1708.11.

(i) *The department shall determine that lowering of water quality is necessary to accommodate a project or activity in order to provide an important economic or social development if:*

(1) *An alternatives analysis has been submitted in accordance with (b) and (c), above;*

(2) *The department has reviewed and accepted the alternatives analysis;*

- (3) *The department has reviewed and accepted the information provided by the applicant pursuant to (e), above, relative to important social or economic development;*
- (4) *The department has reviewed and accepted the information provided by the applicant pursuant to (f), above, relative to the environmental impacts of lower water quality;*
- (5) *The department has received public comment in accordance with Env-Wq 1708.11; and*
- (6) *The department finds that:*
  - a. *No feasible alternative exists that would not result in degradation;*
  - b. *The proposed degradation is the minimum necessary to carry out the project or activity; and*
  - c. *The social and economic benefits of the proposed project or activity outweigh the environmental harm that could be caused by the lower water quality.*

*Readopt with amendment Env-Wq 1708.12, eff. 5-21-08 (doc. #9162), to read as follows:*

Env-Wq 1708.12 Transfer of Water to Public Water Supplies.

*(a) The transfer of waters from rivers, streams, lakes, or ponds to waters used as a public water supply **one water body to another** shall **not** be subject to the following **allowed unless all of the following** conditions are met:*

*(a) — Both the source water in the area of the withdrawal and the receiving water shall be acceptable for water supply uses after treatment;*

*(b) — The chemical, and physical water quality parameters of the source water shall be at least equal to the water quality of the receiving water;*

*(e1) The biological characteristics of the source **transferred** water shall be compatible with those of the receiving water and shall not contain **exotic aquatic species or other** species of aquatic life that would adversely affect the species of aquatic life **could result in a violation of Env-Wq 1703.19, relative to the integrity of the biological and aquatic community**, in the receiving water; and*

*(2) Existing and designated uses shall be maintained and supported in the source water and in the receiving water; and*

*(e3) The **withdrawal from the source water and transfer and withdrawal to the receiving water** shall comply with the antidegradation provisions of this part **both be considered significant for the purposes of antidegradation review**.*

*(b) Transferred water may be treated to comply with the requirements of this section.*

*(c) If all of the conditions specified in (a), above, are met, the transfer of water shall not constitute:*

*(1) A discharge under RSA 485-A:8, I; or*

*(2) A discharge under RSA 485-A:13, I(a).*